

REPORT / RECOMMENDATION



To: MAYOR AND CITY COUNCIL

Agenda Item #: IV. D.

From: Chad A. Millner, PE, Director of Engineering

Action ☒

Discussion ☐

Date: May 19, 2015

Information ☐

Subject: Authorize Engineering Services for Tracy Avenue, Valley View Road & Valley Lane Intersection Improvements

Action Requested:

Authorize City Manager to sign attached proposal for engineering services.

Information / Background:

Please recall our discussion at the April 21 council meeting about coming back with a professional services proposal for this project. Due to their existing work with Three Rivers Park District (TRPD) on the Nine Mile Creek Regional Trail (NMCRT) that we were able to get benefit from, SEH provided a proposal for final design and bidding services for the Tracy Avenue, Valley View Road & Valley Lane intersection improvements.

The design will include a roundabout that will incorporate the TRPD's NMCRT. The roundabout greatly improves several concerns related to traffic speeds, traffic queuing from Valley Lane onto Tracy Avenue and trail users crossing the intersection. Utility improvements include replacing the box culvert under Valley Lane that carries the Nine Mile Creek, and upgrades to the storm sewer and water main systems.

The project will be funded by a combination of Three Rivers Park District, Municipal State Aid, Pedestrian and Cyclist Safety Fund, and utility funds. It is listed in the Capital Improvement Plan under Project #'s 15-151 and 15-165.

Attachment:

SEH Proposal Letter Dated May 12, 2015

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Building a Better World
for All of Us®

SUPPLEMENTAL LETTER AGREEMENT

May 12, 2015

RE: City of Edina
2016 Tracy Avenue, Valley View Road
and Valley Lane Intersection
Improvements BA-430
SEH No. EDINA131821 10.00

Mr. Chad Millner, PE
Director of Engineering
City of Edina
Engineering and Public Works Facility
7450 Metro Boulevard
Edina, MN 55439

Dear Chad:

Short Elliott Hendrickson Inc. (SEH®) is pleased to submit the attached proposal for the final design, bidding document production and bidding assistance portion of the referenced project.

If accepted, this supplemental letter agreement describes how we will provide these services for a not-to-exceed fee of \$237,295.00. This amount is detailed in the attached Task Hour Budget (THB) and includes all reimbursable expenses. We will bill the City monthly for reimbursable expenses and on an hourly basis for labor. We will provide these services in accordance with our Agreement for Professional Engineering Services dated June 4, 2013, herein called the Agreement.

The project includes the realignment of the Tracy Avenue, Valley View Road and Valley Lane intersection with a roundabout and will incorporate Three Rivers Park District's Nine Mile Creek Regional trail (trail). The roundabout solves several concerns related to traffic speeds, traffic queuing from Valley Lane onto Tracy Avenue and trail users crossing the intersection.

Also included in the project is the replacement of the box culvert under Valley Lane that carries Nine Mile Creek and includes upgrades to the storm sewer and water main systems in the project area. The project is funded through a combination of the City's Municipal State Aid, Pedestrian and Cyclist Safety (PACS), and utility funds and by Three Rivers Park District for their portion related to the trail.

The project's final design will encompass several technical challenges including the roundabout, retaining walls, box culvert and watermain installation under Nine Mile Creek. Extensive coordination with agency stakeholders including the Minnesota Department of Transportation, Nine Mile Creek Watershed District and Three Rivers Park District will be required to ensure a successful project.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 10901 Red Circle Drive, Suite 300, Minnetonka, MN 55343-9302
SEH is 100% employee-owned | sehinc.com | 952.912.2600 | 800.734.6757 | 888.908.8166 fax

Mr. Chad Millner, PE
May 12, 2015
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We understand the City wants to conduct a bid opening in February 2016 to ensure a competitive bidding environment. In order to reach this goal, we have developed the following anticipated project production schedule in the table below.


Anticipated Project Schedule		
Work Item No.	Work Item Description	Work Item Key Milestone Date
1	Begin Data Collection/Bidding Documents	May 20, 2015
2	Present 30% Design to Edina Transportation Commission	August 20, 2015
3	Mail update memorandum to affected residents	August 21, 2015
4	Present 60% Design to Edina Transportation Commission	September 17, 2015
5	60% Plan Submittal to State Aid / TRPD	September 18, 2015
6	Neighborhood Meeting	October 8, 2015
7	100% Plan Submittal to State Aid / TRPD	December 7, 2015
8	Begin Advertising for Bids	January 12, 2016
9	Open Bids	February 2, 2016
10	Award Construction Contract	February 16, 2016
11	Begin Construction	April 2016
12	Substantially Complete Construction	September 2016

This Supplemental Letter Agreement, THB, and the Agreement represent the entire understanding between the City of Edina and SEH in respect to the project and may only be modified in writing if signed by both parties.

We sincerely appreciate the opportunity to present this supplemental letter agreement for bid documents and bidding assistance. Please contact me at 952.912.2616 or tmuse@sehinc.com with questions regarding this proposal.

Sincerely,

SHORT ELLIOTT HENDRICKSON INC.


Toby Muse, PE
Project Manager

c: Eric Nelson, Three Rivers Park District

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Accepted on this ____ day of _____, 2015

City of Edina, Minnesota

By: _____
Name



**Task Hour Budget
City of Edina**

**2016 Tracy Avenue, Valley View Road and Valley Lane Intersection
Improvement No: BA-430
May 12, 2015**

				PROJECT TASKS	ESTIMATED COST
Bid Document Services					
1.0				Final Design Tasks	
	1.1			Data Collection	
		1.1.1		Obtain Utility as-builts from City (1)	
		1.1.2		Comprehensive Water Resource Management Plan dated 7/03 prepared by BARR Engineering for the project area.	
		1.1.3		Sanitary sewer manhole structure survey data	
		1.1.4		Previous soil boring logs and/or test results (1)	
		1.1.5		Traffic and pedestrian counts	
			1.1.5.1	24 hour tube counts & intersection video (1) (2)	
			1.1.5.2	Conduct AM and PM peak period counts from intersection video	
			1.1.5.3	Warrant Analysis based on tube counts	
			1.1.5.4	Safety Analysis	
			1.1.5.5	Prepare 2036 Traffic Forecast	
			1.1.5.6	Prepare Roundabout Justification Report	
		1.1.13		Wetland Delineation	
	1.2			Gopher State One Call	
		1.2.1		Obtain Ticket No. for Gopher State One Call	
		1.2.2		Collect atlases from private utility companies in the project area	
	1.3			Topographic Survey (3)	
		1.3.1		Tracy Avenue culvert condition assessment (4)	
	1.4			Geotechnical Investigation (5)	
		1.4.1		Review previous soil boring logs and/or test results	
		1.4.2		Develop geotechnical drilling/testing scope	
		1.4.3		Prepare drilling location maps	
		1.4.4		Coordination with City and Braun prior to drilling	
		1.4.5		Coordination with Braun during drilling	
		1.4.7		Soil sample review and lab testing assignment	
		1.4.8		Lab testing review	
	1.5			Street / Pavement Design (6) (7) (8)	
		1.5.1		Roundabout	
			1.5.1.1	Refine roundabout geometric design based on RODEL using 2036 traffic demands	
		1.5.2		Valley Lane	
	1.6			Drainage / Storm Sewer Design (9)	
		1.6.1		Storm Sewer and Temporary Creek Bypass Design	
		1.6.2		Storm water basin design (10)	
	1.7			Water Main Design (11)	
	1.8			Lighting Design	
	1.9			Structural Design (12)	
		1.9.2		Box Culvert - Tracy Avenue (13)	
		1.9.3		Box Culvert - Valley Lane (14)	
		1.9.4		Concrete Head-Wall - Tracy Avenue	

				PROJECT TASKS	ESTIMATED COST
	1.10			Geotechnical Design	
		1.10.1		Develop Site Stratigraphy/Soil Parameters	
		1.10.2		Internal Coordination	
		1.10.3		Evaluate Dewatering and Creek Diversion Plan	
		1.10.4		Evaluate Subgrade and Pavement	
		1.10.5		Evaluate Roundabout Retaining Walls	
		1.10.6		Evaluate Valley Lane Box Culvert Foundations	
		1.10.7		Prepare Geotechnical Memorandum	
	1.11			Landscaping	
		1.11.1		Roundabout (15)	
				Subtotal Labor Cost	\$61,638
2.0				Meetings	
	2.1			Kick-off meeting with City/TRPD staff (16)	
	2.2			Email private utility companies (17)	
	2.3			MnDOT State Aid - Confirm Roundabout Eligibility	
	2.4			MnDOT State Aid Design Review	
	2.5			Neighborhood Meeting (18)	
		2.5.1		Prepare plots summarizing improvements for use at the meeting (19)	
		2.5.2		Attendance at Neighborhood Meeting (20)	
	2.7			City Staff, City Boards and Commission Meetings, and other Agency Meetings	
		2.7.1		Transportation Commission Meeting	
		2.7.2		Nine Mile Creek Watershed District Meeting (21)	
				Subtotal Labor Cost	\$10,132
3.0				Bid Document Preparation	
	3.1			Plan sheets	
		3.1.1		Title Sheet	
		3.1.2		General Layout	
		3.1.3		Statement of Estimated Quantities	
		3.1.4		Construction Staging and Traffic Control Plan	
		3.1.5		Detour Plan	
		3.1.6		Tabulation of earthwork	
		3.1.7		Tabulation of existing sanitary and storm sewer structure reconstruction or adjustment	
		3.1.8		Tabulation of removals and miscellaneous restoration	
		3.1.9		Typical pavement sections & List of standard plates	
		3.1.10		Alignment Plan	
		3.1.11		Construction Notes and MnDOT Standard Plans	
		3.1.12		Miscellaneous Details	
		3.1.13		Signing and Striping Plan and Tabulation	
		3.1.14		Concrete Head Wall - Tracy Avenue	
		3.1.15		Box Culvert - Valley Lane	
		3.1.16		Water main Reconstruction Plan	
		3.1.17		Storm water Pollution Prevention Plan	
		3.1.18		Plan and Profile sheets and Cross Sections	
		3.1.19		Intersection Details	
		3.1.20		Ped Ramp Details	
		3.1.21		Trail Crossing Flasher Plan (RRFB)	
		3.1.22		Lighting Plan	
		3.1.23		Roundabout Landscaping Plan	
	3.2			Project Manual	
		3.2.1		Front End (22)	
		3.2.2		Bidding Requirements (23)	
		3.2.3		Conditions of Contract	
		3.2.4		Specifications	
		3.2.5		Special Provisions	

				PROJECT TASKS	ESTIMATED COST
		3.2.6		Appendix	
				Subtotal Labor Cost	\$103,449
4.0				Quantities and Opinion of Probable Cost (24)	
	4.1			Opinion of Probable Cost and Proposal Form	
		4.1.1		Streets	
			4.1.1.1	Roundabout	
			4.1.1.2	Valley Lane	
		4.1.2		Storm Sewer	
		4.1.3		Water Main	
		4.1.5		Retaining Wall - Tracy Avenue	
		4.1.6		Box Culvert - Valley Lane	
		4.1.7		Roundabout Landscaping	
		4.1.8		Lighting	
				Subtotal Labor Cost	\$10,156
5.0				Agency Review / Submittals	
	5.1			City of Edina (25)	
	5.2			State Aid	
	5.3			Three Rivers Park District (25)	
	5.4			Nine Mile Creek Watershed District	
		5.4.1		Hydraulic Modeling	
			5.4.1.1	Review Current NMCWD XPSWMM Model (27)	
			5.4.1.2	Create existing (pre-project) conditions using HY-8 (26)	
			5.4.1.3	Size new culvert crossing for Valley Lane (28)	
			5.4.1.4	Create proposed (post-project) conditions HY-8 model (29)	
			5.4.1.5	QA/QC (30)	
			5.4.1.6	Prepare Design Memorandum and Figures	
		5.5.1		Permitting Tasks	
			5.5.1.1	Calculate Compensatory Storage Requirements	
			5.5.1.2	Determine Mitigation Site (31)	
			5.5.1.3	QA/QC (31)	
			5.5.1.4	Prepare Compensatory Storage Figures	
			5.5.1.5	Prepare Technical Memorandum and Application (31)	
			5.5.1.6	Initial NMCWD Coordination	
			5.5.1.7	NMCWD Permit Coordination/Comments	
			5.5.1.8	MnDNR Public Waters Permit Submittal document Preparation	
			5.5.1.9	MnDNR Public Waters Permit Coordination/Comments	
			5.5.1.10	USACE Permit Coordination/Comments	
	5.5			Private Utility Companies	
	5.6			MPCA	
		5.6.1		NPDES Permit/SWPPP	
				Subtotal Labor Cost	\$35,232
6.0				Bidding Assistance	
	6.1			Prepare Ad for Bids	
	6.2			Prepare Electronic Bid Documents (32)	
		6.2.1		Plans	
		6.2.2		Project Manual	
	6.3			Respond to Bid Inquires	
	6.4			Prepare Addenda	
	6.5			Attend Bid Opening	
	6.6			Prepare Tabulation of Bids	
				Subtotal Labor Cost	\$2,572

		ESTIMATED COST
PROJECT COST SUMMARY		
Bid Document Services		
	Subtotal Hours	1,857
	Subtotal Labor Cost	\$223,179.61
	Subtotal SEH Expenses	\$1,500.39
	Subtotal Subconsultant Expenses	\$12,615.00
	Subtotal	\$237,295.00
TOTAL COST ASSOCIATED WITH THIS PROPOSAL:		\$237,295.00

P:\AE\E\Edina\131821\1-gen\10-setup-cont\03-proposal\[SEH THB Tracy Valley RAB Bid Docs Council.xlsx]Hours-Costs

NOTES

- 1 Task completed by City and provided to SEH
- 2 Counts will occur during May with school still in session
- 3 A majority of the project area has already been surveyed in conjunction with the Nine Mile Creek Regional Trail (NMCRT) project. We will only collect topographic survey where necessary to supplement this data. Includes topographic survey of existing culverts under Tracy Avenue and Valley Lane and upstream creek cross sections.
- 4 A pipe condition assessment of the Tracy Avenue culvert will not be completed due to the presence of existing standing water inside the culvert. In order to obtain a thorough analysis of the culvert, either a temporary cofferdam, diver, or subconsultant who specializes in robotic video in under-water conditions would be required. Due to budget constraints, we have not included this scope of work in our work plan.
- 5 SEH will contract directly with Braun Intertec for soil borings and laboratory testing.
- 6 We will use the December 2014 preliminary roundabout concept we developed with staff as the basis for our final roundabout design.
- 7 Horizontal and vertical alignments will be assigned to all streets in the project area.
- 8 Design shall adhere to MnDOT State Aid design standards.
- 9 Complete the detailed design of storm sewer extensions and/or new systems per State Aid hydraulic design standards
- 10 Basin design for treatment purposes should not be needed based on the decrease of impervious area created by the project. Given the elevation drop to the creek, we anticipate the design of a basin to provide energy dissipation.
- 11 Based on discussions with staff, we understand all water main in the project area will be replaced. This includes design of directional drilled water main under Nine Mile Creek at Valley Lane. This includes replacement of the main/hydrant located on the New City Covenant Church property. This task assumes the water main pipe and hydrant are located in an existing utility easement. No easement tasks are included in this scope of work including but not limited to graphics, survey, legal descriptions, appraisals, etc.
- 12 Does not include final design/bid document production of a pedestrian bridge since the box culvert at Valley Lane will be extended.
- 13 The existing culvert under Tracy Avenue will be left in place. Our scope of work does not include design/bid document production for the rehabilitation (lining) or reconstruction (dig and replace) of this culvert.
- 14 Based on discussions City staff have conducted with Nine Mile Creek Watershed District, our scope of work for the replacement of this culvert assumes replacement in kind that matches the existing width and height of the culvert, no custom precast concrete wingwall will be required on the upstream side of the culvert and a standard MnDOT end section will be installed on the downstream side.
- 15 Assumes landscaping plan is limited to only the center median of the roundabout. Does not include additional landscape elements in the roundabout leg medians or for the regional trail.
- 16 This task was partially completed on 3/11/15 with SEH, TRPD and City staff.
- 17 Task will notify CenterPoint Energy, Xcel Energy, Comcast, and CenturyLink of the potential project and inquire whether or not they have any facilities in need of updating. If so, the private utility companies will be instructed to coordinate with the City the timing of this work prior to the start of the project.

- 18 One (1) meeting will be scheduled to present a 60% design review with the public. City staff will determine meeting invitees and send invites.
- 19 SEH will provide one (1) plot at a scale of 1"=30'. The plot will have an aerial photo of the project area with 1. existing geometric line work 2. existing water main trunk pipe line work 3. topographic survey line work 4. property and right-of-way lines 5. street names and addresses, and 6. 60% complete proposed improvements for the roundabout, regional trail, sidewalks, curb and gutter, storm sewer, and water main.
- 20 Assumes attendance by SEH staff is not required and City staff will create the meeting presentation.
- 21 Obtain specific permitting parameters from Nine Mile Creek Watershed District staff regarding storm water treatment, water quality, floodplain, and wetlands as applicable.
- 22 Contains title sheet, certification sheet, table of contents, contact sheet, instructions to bidders, and advertisement for bids.
- 23 Includes proposal form, instructions to bidders, and advertisement for bids
- 24 Quantity calculations will be captured in a XLSX file that will be incorporated into the proposal form as part of the bidding document project manual and monthly pay applications utilized during reconstruction to track quantities and costs for each funding source allocated for the project.
- 25 Includes email submittal in pdf format of draft final bidding documents
- 26 Review of project area only
- 27 We will use the Edina High School HEC-RAS model from NMCRT project as starting point and extend the model downstream to FEMA FIS Section BK (approx. 250 feet downstream of Valley View Rd). The flow data and cross sections are expected to come from NMCWD XPSWMM model, with cut cross sections at FEMA FIS cross section locations added for further detail. The HEC-RAS model will be compared to the NMCWD XPSWMM model for accuracy. Topographic data is anticipated to come from LiDAR, project surface and survey. Data representing existing culverts will come from survey.
- 28 End product will result in a NO RISE condition or change in water surface profiles due to proposed improvements that meets NMCWD rules. Includes analysis of extending the box culvert at Valley Lane in lieu of proposing a pedestrian bridge.
- 29 Incorporate culvert design as applicable.
- 30 Includes 3rd party review of limited hydraulic models and cross checking in XPSWMM (assume this is throughout design process, not just one review)
- 31 Includes the entire project area, not just the crossings
- 32 Bid documents will be available for purchase via Quest CDN on the City's web site.